PIN21

COMPARISON OF 30-DAY DIRECT MEDICAL COSTS OF AZITHROMYCIN AND LEVOFLOXACIN FOR PATIENTS HOSPITALIZED WITH COMMUNITY-ACQUIRED PNEUMONIA

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OBJECTIVES: The CAP-IN study compared two methods of treatment for moderately to severely ill patients hospitalized with community-acquired pneumonia: a 7–10 day course of sequential therapy with intravenous azithromycin plus intravenous ceftriaxone followed by oral levofloxacin (AZITH) versus a 7–14 day course of intravenous levofloxican followed by oral levofloxacin (LEVO). The trial was stopped early, with n = 110 for AZITH and n = 102 for LEVO, when similar clinical efficacy was demonstrated. We compared the 30-day direct medical costs of the two treatments. **METHODS:** The primary inputs to the economic analysis were drug dosage, hospital days and location during the stay, and post-discharge utilization (home care, outpatient visit, emergency department, physician office). For each, observed utilization was multiplied by an estimated unit price. The sensitivity of the results to the variability of the patients in the trial was assessed using bootstrapping. **RESULTS:** The difference in total cost was $2034, with 95% confidence interval $263 to $3803 (p = 0.025), in favor of AZITH. This result was primarily due to an approximately 1.5 day difference in length of hospital stay. **CONCLUSIONS:** Direct medical costs for AZITH were $2034 less than the corresponding costs for LEVO, the primary reason being a reduction in the length of stay. AZITH is no more costly than LEVO, and perhaps less so. In selecting between these drugs, physicians should consider various factors, among them being convenience of administration and cost.

PIN22

HOSPITAL UTILIZATION TRENDS OF HIV DISEASE IN THE UNITED STATES, 1993 TO 2001

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OBJECTIVES: Advances in the treatment of HIV infection have led to significant improvement in clinical outcomes. Little information is available on the long-term impact of HIV therapy on national health care resource utilization in the US. This study is to evaluate recent trends in hospitalization of patients with HIV disease in the US. **METHODS:** Data from the Health care Cost and Utilization Project 1993–2001 are analyzed. Hospitalizations due to HIV disease were identified using ICD-9 codes 042 and V08 as both principal diagnoses and all listed diagnoses at discharge. National estimates of HIV hospitalizations were computed based on the weights of the survey sampling structure. **RESULTS:** The incidence of hospitalizations due to HIV disease as a principal diagnosis increased dramatically from 8.9/100,000 person-years in 1993 to 57.1/100,000 person-years in 1995, then declined significantly to 26.1/100,000 person-years in 2001 (P = 0.0012 from regression analysis). Same trend is followed by total annual hospital charges (in 2001 US$) due to HIV disease as the principal diagnosis, increasing from 0.44 Billion in 1993 to $3.8 Billion in 1995 then dropping to $2.1 Billion in 2001, and its percentage of total annual hospital charges from all causes, increasing from 0.11% in 1993 to 0.79% in 1995, and then declining to 0.38% in 2001. However, the incidence of hospitalizations with HIV disease listed in any diagnostic fields and its percentage of total annual hospital charges show a bimodal trend with two peaks in 1994 (126.1/100,000, 1.88%) and 1998 (99.9/100,000, 1.48%), and a nadir in 2001 (79.3/100,000, 1.18%). **CONCLUSIONS:** These results suggest that the number of hospitalizations and annual hospital charges due to HIV disease as the principal diagnosis has declined since 1995. However, the same declining trend was not observed for hospitalizations listing HIV disease in any diagnostic fields.

PIN23

CLINICAL AND ECONOMIC IMPACT OF HERD IMMUNITY ASSOCIATED WITH HEPTAVALENT PNEUMOCOCCAL CONJUGATE VACCINATION IN CANADA

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OBJECTIVES: Since mid-2001, a heptavalent pneumococcal conjugate vaccine (PCV-7) against 7 common pneumococcal serotypes has been available in Canada. The purpose of this study is to build upon existing economic evaluations and use recent herd immunity evidence to estimate the real-world clinical and economic effectiveness of PCV-7 in Canada. **METHODS:** A systematic literature review was completed using Medline and Canadian health care publications including: Canadian Journal of Infectious Disease and Canadian Communicable Disease Report. The search terms included: pneumococcal, costs, cost-effectiveness, herd immunity, and incidence. Clinical and economic impacts of adult pneumococcal disease were determined based on epidemiologic and cost data available from the United States and Canada. **RESULTS:** Three pharmacoeconomic evaluations of PCV-7 in Canada have each found that routine immunization would help Canada avoid substantial morbidity and mortality, and associated health care costs and productivity losses. Using recent effectiveness data, the reduction in adult pneumococcal disease is estimated to save an additional $40 million from a Canadian health care perspective; suggesting the vaccine is cost-saving. **CONCLUSIONS:** Herd immunity resulting from a universal childhood PCV-7 program will have a substantial clinical and economic impact on populations greater than 20 years of age, thereby making PCV-7 a cost-saving intervention for the Canadian health care system.

PIN24

ANTIBIOTIC PRESCRIBING RATES IN AMBULATORY CARE SETTINGS FOR PATIENTS DIAGNOSED WITH INFLUENZA, 1997–2001

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OBJECTIVES: Inappropriate use of antibiotics for treating infections of viral etiology has contributed to the growing public health problem of antibiotic resistance. Influenza has been shown to be a major cause of febrile illness for which antibiotics are inappropriately prescribed. The rate, pattern and cost of antibiotic prescribing for patients aged 5–49 diagnosed only with influenza in the ambulatory care setting have not been documented. **METHODS:** Combined data from the 1997–2000 National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey were used to estimate influenza visit and antibiotic prescribing rates. All visits with an exclusive diagnosis of influenza (ICD-9 487.X) were included. Visit costs were based on 2003 Medicare national average allowances and drug costs for a standard agent-specific course of treatment was calculated using average wholesale prices from 2003 Thompson MICROMEDEX Red Book. **RESULTS:** From 1997–2001, 6.6 million (95%CI: 5.6, 9.1) ambulatory care visits coded with a sole diagnosis of influenza were reported for children and adults 5–49 years; an average of 1.3 million annual visits. Sixty-seven percent of visits were made by adults 18–49